ABSTRACT

A semiconductor device comprising a semiconductor chip having an active and a passive surface; the active surface includes an integrated circuit and input/output pads suitable for metallurgical contacts. Further, the device has a protective plastic film (polyimide, epoxy resin, or silicone) of controlled and uniform thickness (20 to 60 μm) selectively attached to the passive surface. The film is suitable to absorb light of visible and ultraviolet wavelengths, to remain insensitive to moisture absorption, and to exert thermomechanical stress on the chip such that this stress at least partially neutralizes the stress exerted by an outside part after chip assembly.